

# **FY 1998 PRIORITIZATION PROCESS DATA UPDATE FORM FOR ONGOING BPA FUNDED FISH AND WILDLIFE PROJECTS**

## **SECTION 1: GENERAL PROJECT TRACKING AND CLASSIFICATION INFORMATION**

**PROJECT NAME:** *Please keep it less than 75 characters, and do not include the contractor name or acronym in the title -- there are separate fields for contractor and for classifying projects as anadromous fish, resident fish or wildlife.*

### **SCREENS AND TRAPS ON THE WALLA WALLA AND TOUCHET**

**PROJECT NUMBER:** Please do not change this number.

**9601100**

**PROJECT PROPOSER OR SPONSOR:** *Enter full business name.*

**Confederated Tribes of the Umatilla Indian Reservation**

**Enter Acronym for sponsor if applicable:**

**CTUIR**

**TECHNICAL CONTACT:**

**Gary James**

**TITLE:**

**Fisheries Program Manager**

**PHONE:**

**541/276-4109**

**MAILING ADDRESS:** *Please enter each component separately.*

**P.O. Box 638**

**City**

**Pendleton**

**State:**

**OR**

**ZIP**

**97801**

**E-MAIL ADDRESS:**

**N/A**

**SUB-CONTRACTORS:** *List other agencies or entities that will receive funding under this project, either through sub-contracts managed by the project sponsor or, where multiple agencies are involved as joint sponsors, through primary contracts managed by Bonneville. If another entity will be responsible for the long term maintenance of the project, identify them here. In the task description later in this form, note which tasks are to be performed by subcontractors.*

**Montgomery Watson Engineering/Construction Contractor(s)**

**NPPC PROGRAM MEASURE NUMBER:** *Refer to the 1994 program as amended in 1995. NPPC staff will proof this field and correct if necessary. If your projects relate to more than one measure number, use a semi-colon between numbers.*

**7.10A**

**EXPLAIN BRIEFLY HOW THE PROJECT RELATES TO THE ABOVE PROGRAM MEASURE:**

**Project directly relates to language: “Provide passage and protective screens on tributaries”.**

**PROGRAM GOAL THE PROJECT ADDRESSES: Check any that apply.**

<b>Supports a healthy Columbia Basin</b>	<b>X</b>
<b>Maintains biological diversity</b>	<b>X</b>
<b>Maintains genetic integrity</b>	<b>X</b>
<b>Increases run sizes or populations</b>	<b>X</b>
<b>Provides needed habitat protection</b>	<b>X</b>

**If the project does not directly address one of these goals, but provides management information or coordination, check one of the following fields:**

Adaptive management (research or monitoring or evaluation)		{22}
Program Coordination or Planning		{23}
Other (Specify)	{24A}	{24}

**FOCUS:** Check one major program category and one sub-category that most closely fits the project, so that we can group it with other similar projects for review purposes.

<b>Anadromous Fish</b>	<b>X</b>
<b>Hydro Operations/Mainstem passage/Mainstem construction</b>	<b>{25A}</b>
<b>Habitat or Tributary Passage</b>	<b>X</b>
<b>Production</b>	<b>{25C}</b>
<b>Operation &amp; Maintenance</b>	<b>{25D}</b>
<b>Research, Monitoring, or Evaluation</b>	<b>{25E}</b>

<b>Resident Fish</b>		<b>{26}</b>
	<b>Habitat</b>	<b>{26A}</b>
	<b>Production</b>	<b>{26B}</b>
	<b>Operation &amp; Maintenance</b>	<b>{26C}</b>
	<b>Research, Monitoring, or Evaluation</b>	<b>{26D}</b>
<b>Wildlife</b>		<b>{27}</b>
	<b>Planning/Coordination</b>	<b>{27A}</b>
	<b>Habitat Protection/Enhancement</b>	<b>{27B}</b>
	<b>Operation &amp; Maintenance</b>	<b>{27C}</b>
	<b>Research, Monitoring, or Evaluation</b>	<b>{27D}</b>
<b>Basin-wide Program Coordination</b>		<b>{28}</b>
<b>Watersheds</b>		<b>{29}</b>
	<b>Assessment/Action Plan Development</b>	<b>{29A}</b>
	<b>Coordination</b>	<b>{29B}</b>
	<b>Project implementation</b>	<b>{29C}</b>
	<b>Research, Monitoring, or Evaluation</b>	<b>{29D}</b>
<b>Education</b>		<b>{30}</b>

**LOCATION:** *Identify the sub-basin, stream name and stream miles affected, and hydro unit, if applicable, or land area affected by the project, if applicable. Respond to two or more of these to identify land areas affected*

by the project. If the project is for coordination or other activities that do not yield biological benefits in a specific location, enter an x by office site only.

<b>Sub-basin</b>	<b>Walla Walla</b>
<b>Stream name</b>	<b>Walla Walla and Touchet Rivers</b>
<b>Stream miles affected</b>	<b>47 mi. below projects for increased juvenile access and utilization</b>
<b>Hydro unit code</b>	<b>{34}</b>
<b>USGS Quadrangle Map Name</b>	<b>{35}</b>
<b>USGS Quadrangle Map Area</b>	<b>{36}</b>
<b>County</b>	<b>{37}</b>
<b>Township/Range Location</b>	<b>{38}</b>
<b>Latitude/Longitude or UTM</b>	<b>{39}</b>
<b>Number of acres affected by the project</b>	<b>{40}</b>
<b>Land Ownership (public or private)</b>	<b>{41}</b>
<b>Office site only ( Put an “X” if project is not affecting fish, wildlife, or habitat at a specific location)</b>	<b>{42}</b>

**SHORT DESCRIPTION:** *Describe the project in a short phrase ( <250 characters). Give information that is not in the title. If possible start this field with an action verb (protect, modify, develop, enhance, etc.) rather than a noun (this project). Additional detail will be requested below -- this field is sometimes used in conjunction with the title and funding level, for reports that provide short listings or summaries of BPA-funded projects. To enable formatting on shorter reports we must limit the size of this field.*

**Provide for safe outmigration of smolts in order to enhance summer steelhead and restore spring chinook salmon runs in the Walla Walla Subbasin. Develop screen/trap facilities to bypass smolts safely to river or capture smolts for trucking from the Little Walla Walla Diversion to the mouth of the Walla Walla River when conditions are not adequate for safe smolt outmigration.**

**BIOLOGICAL OPINION ID:** *If the project relates to either the Kootenai Sturgeon Biological Opinion, the NMFS Hydrosystem Operations Biological Opinion, or other Endangered Species Act Requirements, enter the Action Number and Biological Opinion Title.*

**OTHER PLANNING DOCUMENTS:** *If the project is called for in the National Marine Fisheries Service Snake River Salmon Recovery Plan, or in Wy Kan Ush Me Wa Kush Wit, the Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs and Yakama tribes, in U.S. Forest Service or Bureau of Reclamation land management plans, or in local area sub-basin or watershed plans, or in other planning documents, provide the name of the plan and reference citation where the need is identified.*

**Wy Kan Ush Me Wa Kush Wit, Walla Walla Subbasin Plan**

**TARGET STOCKS, POPULATIONS OR HABITAT TYPES:** *Identify each stock, population, watershed, or HEP target species affected by the project. (For fish projects, provide enough information to identify the sub-population -- e.g. Lostine River Spring Chinook). For fish projects, identify the life stage of the stock affected, and enter any of the following codes that apply to indicate the stock management approach. For wildlife projects, identify the HEP target species under target population, the habitat type, and the hydroelectric project the mitigation relates to. If data are downloaded in the first row, correct as needed to make sure one stock or population appears on each row.*

<i>S</i>	<i>Managing for natural production assisted by artificial outplanting</i>
<i>A</i>	<i>Production returning to hatchery or adult collection site, not intended to naturally produce; or using artificial production primarily for fisheries enhancement</i>
<i>N</i>	<i>Management intent to have naturally spawning fish without targeted artificial enhancement</i>
<i>(P)</i>	<i>Proposed listed species under ESA</i>
<i>(L)</i>	<i>Species listed under ESA</i>
<i>E</i>	<i>Species is extinct in subbasin</i>
<i>?</i>	<i>Questions</i>
<i>d</i>	<i>Disagreement</i>
<i>W</i>	<i>Contributes to rebuilding weak but recoverable native populations</i>

<b><i>RSH</i></b>	<b><i>Addresses resident fish substitution for areas that previously had salmon and steelhead but where anadromous fish are now irrevocably blocked by federally <u>operated</u> hydropower developments</i></b>
<b><i>RSL</i></b>	<b><i>Addresses resident fish substitution for areas that previously had salmon and steelhead but where anadromous fish are now irrevocably blocked by federally <u>licensed or regulated</u> hydropower developments</i></b>

TARGET STOCK/SPECIES	LIFE STAGE (if anad. fish)	STOCK MANAGEMENT CODE
Walla Walla River Summer Steelhead	Smolt	S, W
Walla Walla/Carson Spring Chinook	Smolt	E, S
{48A}	{48B}	{48C}
{49A}	{49B}	{49C}

*(enter more rows as needed)*

#### HABITAT TYPES:

{55}

**HYDROELECTRIC PROJECT:** *If the project mitigates for damages caused by a particular Federal Hydroelectric project, identify which one.*

{56}

**OTHER AFFECTED NON-TARGET STOCKS OR POPULATIONS:** *Identify other fish stocks or wildlife populations affected by the project, and indicate whether the effects will be beneficial or detrimental.*

Stock/population affected	Beneficial or Detrimental
Bull Trout	Beneficial to intrabasin migration

<b>{58A}</b>	<b>{58B}</b>
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**RELATED BPA PROJECTS:** *List related BPA funded projects by number and describe the relationship to this proposal. If data are downloaded, correct as needed to make sure only one project number is listed in each row.*

<b>Project numbers</b>	<b>Relationships</b>
<b>9990071 - Adult Fish Passage Improvement in Walla Walla Basin</b>  <b>9990070 - Walla Walla Basin Anadromous Fish Habitat Enhancement</b>  <b>-9606400 - Walla Walla Co. (SWCD) Habitat Enhancement</b>  <b>8805302 - Northeast Oregon Hatchery - Walla Walla Component</b>	<b>All projects are part of a comprehensive Walla Walla Basin watershed/fisheries restoration program. They will compliment juvenile fish passage improvements by adding adult fish passage, habitat enhancement, and hatchery programs.</b>
<b>{64A}</b>	<b>{64B}</b>
<b>{65A}</b>	<b>{65B}</b>
<b>{66A}</b>	<b>{66B}</b>

**RELATED PROJECTS FUNDED BY OTHER ENTITIES:** *List other related projects by title and funding entity and describe the relationship to this proposal.*

<b>Project title/funding entity</b>	<b>Relationships</b>
<b>Walla Walla Basin Project - US Army COE</b>	<b>Assist with adult passage improvements and develop/implement instream flow enhancement</b>
<b>Walla Walla Basin Project - US BOR</b>	<b>Develop/implement instream flow enhancement</b>



**OPPORTUNITIES FOR COOPERATION:** *Indicate potential or ongoing cooperation between projects, potential for shared equipment, etc.*

This project represents a unique opportunity for multi-entity cooperation and cost sharing.. The COE has already begun design work on a new Nursery Bridge Dam ladder and Marie Dorian Dam has been removed. The COE will fund 75% and BPA will fund 25% of implementation of these projects in 1997 through 1999.

Two irrigation ditch consolidation projects involve numerous irrigation districts and individual landowners. The Bureau of Reclamation and County Soil and Water Conservation Districts are also cooperating and assisting with planning and design for the ditch consolidation projects.

Habitat enhancement projects in the Walla Walla River watershed are being planned, coordinated, and implemented by the Walla Walla Watershed Council, the Oregon Department of Fish and Wildlife, the Washington Dept. of Fisheries and Wildlife, the Confederated Tribes of the Umatilla Indian Reservation, and the three Soil and Water Conservation Districts in the Walla Walla Basin.

The US Army COE and the US Bureau of Reclamation in coordination with state and tribal fisheries managers are investigating opportunities to augment low instream in the Walla Walla River Basin.

BPA is funding construction of a hatchery facility on the South Fork Walla Walla. CTUIR will operate Phase I for Umatilla Basin adult spring chinook spawning and holding beginning in 1997. Phase II will provide for summer steelhead and spring chinook production for the Walla Walla Basin and is expected to be implemented in 1999.

The adult and juvenile passage projects will be complimented by implementation of these other projects, which all together will constitute a comprehensive Walla Walla Basin fish restoration program

## SECTION 2: HISTORICAL INFORMATION FOR ONGOING PROJECTS

*The following 5 fields are retrospective information for ongoing projects -- New proposals skip to Specific Measurable Objective*

**PROJECT HISTORY:** *Provide any background relevant to prioritization (e.g. historic costs if the activity was previously funded under other project numbers, cost shares received from other agencies, major non-biological products or conclusions.) There are separate fields later in this form for biological products, reports, and need for the project.*

The native summer steelhead run in the Walla Walla River is currently in a severely depressed state and spring chinook are extinct due largely to inadequate conditions (poor screens and ladders, low flows, etc.) for up and downstream migration. The NE Oregon Hatchery project developed hatchery facility plans for enhancement of summer steelhead and re-establishment of spring chinook in the upper Walla Walla and Touchet Rivers. Fish released from this effort will need improved irrigation ditch screening and a trap and haul contingency plan to ensure that they reach the Columbia River. The proposed screen/trap facilities would be used to capture smolts for trucking from the Little Walla Walla Diversion to the mouth of the Walla Walla River when conditions are not adequate for safe smolt outmigration (similar to Umatilla program). Existing screen facilities do not provide adequate conditions for bypassing or trapping smolts for transportation. Delay of this project may result in further decline of the wild summer steelhead population and limited effectiveness of spring chinook restoration efforts. In 1996, design and engineering work was initiated for the Little Walla Walla Diversion Screens/Trap and Haul project using BPA funds. In 1997 designs continued on this project and two irrigation ditch consolidation projects in the mid-to-lower Walla Walla River. Initial project construction is expected in 1998.

**PAST OBLIGATIONS FOR THIS PROJECT NUMBER:** *Historic obligations are from BPA records. They will be displayed in the output report along with the other data from this form, but were not downloaded into this form because there is no need to verify or edit this data.*

**BIOLOGICAL RESULTS ACHIEVED:** *For ongoing projects, describe measureable biological outcomes (fish, habitat or wildlife) resulting from past project activities.*

Only some design work completed at this time. Results expected upon completion of projects is improved survival for downstream migrating smolts.

**PROJECT REPORTS AND TECHNICAL PAPERS:** *List all technical and scientific reports and project reports that have resulted from this project.*

No project reports completed at this time. Engineering/design documents are being developed in 1997.

**ADAPTIVE MANAGEMENT IMPLICATIONS:** *Describe how the knowledge gained from past activities and accomplishments of this project has influenced or should influence your approach to conducting this type of project, and/or how it has contributed or could contribute to adaptive program management. Provide recommendations or conclusions relative to how the biological, environmental, technological, or informational results of this project to date relate to broader program management.*

**Improved juvenile fish passage will compliment other projects (adult fish passage, habitat enhancement, artificial production) necessary for restoration of anadromous fisheries in the Walla Walla Basin.**

**Monitoring and evaluation of fish passage effectiveness at completed facilities will provide useful information for any necessary adjustment at the Walla Walla River projects and possibly useful information for similar adult fish passage needs elsewhere in the Columbia River Basin.**

### SECTION 3: SUMMARY DESCRIPTION OF PLANNED PROJECT ACTIVITIES AND EXPECTED OUTCOMES

*The level of detail provided in this section should reflect a pre-proposal stage of planning, and should be sufficient to allow reviewers to ascertain the main tasks and products produced by the project. Additional detail on each project's design and tasks will be collected at the contracting stage. For reviews of ongoing projects, information from past statements of work will be made available. This section is generally broken down into questions about why the project is needed, how you will do it, what it will deliver, and how it will be monitored and evaluated. The questions are generalized to apply to many types of projects, answer in terms of the needs, methods, outcomes, and measurement approaches for your particular type of project, and enter N/A where the particular question does not apply to your project. Please read all questions in this section before starting your responses, and try not to repeat information in more than one response.*

**SPECIFIC MEASURABLE OBJECTIVES:** *For future project activities, describe what the project intends to accomplish in biological, environmental, or information terms.*

**Juvenile steelhead mortality is observed annually due to poor screening bypass conditions. The most severe is Little Walla Walla River diversion where there is no fish bypass from the canal back to the river. Measurable results will be the reduction or elimination of this fish loss.**

**BIOLOGICAL NEED:** *Describe the specific biological problems addressed by the project. Describe the present assumed performance or current trends of target populations or current conditions of watersheds or land areas affected by the project. For anadromous fish, focus on the life stage survival measure affected by the project. For wildlife, identify the needed habitat units (loss assessment). For resident fish projects, describe the needed survival change for the target stock.*

**Without project, native summer steelhead would continue to be impacted and spring chinook restoration would likely be precluded. Walla Walla summer steelhead are currently on the pending list under ESA. See "Project History" above for more information on biological need.**

**SCIENTIFIC BASIS OR RATIONALE FOR PROJECT:** *Provide any of the following that apply for your project. If your project uses a new or experimental method, or is a research or monitoring project, please respond to all elements of the project rationale.*

**A. Identify any critical uncertainties or risks associated with project implementation and/or outcome. Uncertainties are factors that are beyond the control of the project that could affect the outcomes of the project. Risks are unintended project outcomes, such as damage to other stocks.**

**A critically impacted life history stage currently effecting the survival of native summer steelhead and restoration of spring chinook is downstream migration of smolts. Completion of this and other related**

**projects (listed above) addressing additional life history stages will be necessary to implement a comprehensive Walla Walla Basin fish restoration program.**

**B. Identify any underlying assumptions that are implicit in your expectation of the project's success or outcomes. Include a description of changes or lack of change in environmental attributes not directly affected by the project.**

**As stated above, for benefits to be fully realized, other related Walla Walla Basin fisheries restoration projects must be completed.**

**C. Identify the hypothesis to be tested by the project (for research projects or new survival or production methods). Explain the null and alternative hypotheses.**

**N/A**

**D. If alternative approaches to accomplishing this project's biological objectives were considered and rejected, describe them briefly and outline why they were not chosen, or cite a reference or plan in which such analysis was described.**

**N/A**

**E. If the project focuses primarily on planning, assessment or coordination, explain why these efforts should be funded prior to investment in on-the-ground efforts to benefit fish and wildlife. What entities will be involved and how many coordinators will be funded under this project?**

**N/A**

**METHODS:** *Describe the project methodology (appropriate to the type of project). Explain how the project will be implemented and maintained. If the project focuses on assessment or planning, describe the approach to be used and the parties involved. If the project is research or monitoring, describe the experimental design, including justification of the sample size and power analysis, where appropriate. Identify any known limitations of the proposed methods.*

**1) Conduct facility engineering and design**

**2) Construct state of the art screening facilities with associated smolt traps and fish hauling units**

**3) Evaluate fish passage effectiveness by monitoring fish passage and condition at new facilities.**

**PROJECT DEVELOPMENT SCHEDULE:** Enter the date (month/year) the project will or did reach each phase of development. Project phases can overlap in time. For each phase that is not yet completed, describe major project tasks for which funding will be needed. Use a separate field for each task. If data were downloaded in the first field, correct as needed to make sure each task is in a separate line. Give a short phrase or one or two sentence description of the task, identify the completion date, and check if the task will be performed by a sub-contractor. Enter additional fields for more tasks as needed. Deliverables should be described in your response under expected outcomes, below.

<b>PLANNING</b>					
<b>Task:</b>	<b>1996 - Engineering &amp; design work initiated on Little Walla Walla diversion and a ditch consolidation project in the lower Walla Walla River</b>  <b>1997 -Finalize designs &amp; NEPA.</b>				
<b>Start Date:</b>	<b>1996</b>	<b>Completion date:</b>	<b>1997</b>	<b>Subcontractor?</b>	<b>{90D}</b>
<b>IMPLEMENTATION</b>					
<b>Task:</b>	<b>1998: Initiate construction</b>  <b>2000: Finalize construction</b>				
<b>Start Date:</b>	<b>1998</b>	<b>Completion date:</b>	<b>2000</b>	<b>Subcontractor?</b>	<b>{90H}</b>
<b>OPERATION AND MAINTENANCE (under project 8802200 - UM/WW Trap &amp; Haul</b>					
<b>Task:</b>	<b>1999 -Initiate screen/trap &amp; haul operations and begin monitoring and evaluation</b>  <b>2000 -Continue operations, M &amp; E, and recommend passage project improvements as necessary</b>  <b>2001+ - Continue screen/trap &amp; haul operations</b>				
<b>Start Date:</b>	<b>1999</b>	<b>Completion date:</b>	<b>{90K}</b>	<b>Subcontractor?</b>	<b>{90</b>
<b>Project Completion Date:</b>			<b>Ongoing</b>		

**CONSTRAINTS OR FACTORS THAT MAY CAUSE SCHEDULE OR BUDGET CHANGES:**

*Examples include NEPA analysis, permit requirements, consent of other agencies, entities, landowners, or other affected parties, or other factors beyond the control of the project managers.*

**SUMMARY OF EXPECTED OUTCOMES:** *Describe your anadromous fish, resident fish, or wildlife project in terms of the biological, environmental, information or coordination results or outcomes it will produce. Answer any or all questions that apply to your project, by describing outcomes that directly result from the project. For each outcome, indicate the time frame within which it will be realized. Available data have been downloaded into the closest related field - please edit to match data to the new questions.*

- A. Describe the expected performance of target population or expected quality change in land area affected, after completion of this project.**

**Biologists believe that up to one-half (or more in drought years) of summer steelhead smolts migrating from natural production areas in the Walla Walla River to the Columbia River are lost due to current irrigation screening and low-flow problems in the lower drainage. Current and future hatchery programs which release fish in upriver areas will also avoid an approximate 50% smolt loss. New screens/bypasses will allow for safe juvenile fish passage back to the river. A fish trap and haul facility will allow for safe fish passage during extremely low flow periods. Consolidated irrigation diversions will allow for fewer points of diversion, fewer annual push-up dams and some conserved water which will stay instream.**

- B. What is the present utilization and conservation potential of the target population or land area?**

**Present summer steelhead populations are 1,000 to 2,000 and spring chinook have been extinct for several decades.**

- C. What was the assumed historic (reference status) of utilization and conservation potential?**

**The Walla Walla Basin was believed to once support thousands upon thousands of both salmon and steelhead and the basin sill has much pristine habitat in the headwaters.**

- D. What is the long term expected/desired utilization and conservation potential for the target population or target habitat type?**

**Walla Walla Basin anadromous fish restoration goals are 11,000 summer steelhead and 5,000 spring chinook.**

- E. What will the project contribute toward the long term goal?**

**Completion of this and several other ongoing Walla Walla Basin fisheries restoration programs are expected to result in meeting the long-term goals and provide for natural production, harvest, and broodstock collection.**

**F. Describe any additional biological or environmental changes that could result indirectly from the project.**

**N/A**

**G. Describe physical products (miles of fence, number of tagged fish, land area acquired, etc.)**

**Approximately 47 stream miles in the lower Walla Walla River below the screen projects will become more “fish friendly” for smolt outmigration.**

**H. Describe environmental attributes directly or indirectly affected by the project (water temperature, flow, restriction of human uses of land, etc.)**

**N/A**

**I. Describe near term and long term changes assumed or expected for the affected environmental attributes**

**N/A**

**J. Sedimentation reduced by x in reach y after z years, or h number of habitat units produced).**

**See G above.**

**K. Describe how you will assess the effects on project outcomes of critical uncertainties identified above.**

**A comprehensive fish passage and natural production assessment is anticipated (similar to the Umatilla Basin program) following completion of several ongoing Walla Walla Basin fisheries restoration projects.**

**L. Describe information products (monitoring, evaluation, or decision analysis) that the project produces.**

**Following implementation of fish passage improvements, the project will evaluate the fish passage effectiveness at the new projects.**



**M. Describe coordination outcomes of the project.**

The BPA, COE, an engineering firm, CTUIR, ODFW, WDFW and the Milton-Freewater Water Control District, irrigation districts, and landowners are currently all working well together to identify fish restoration needs, develop solutions and review designs. Good coordination is expected to continue during construction and M & E phases of the project.

**MONITORING APPROACH:** *Describe how the region should measure the project's biological or environmental outcomes. (Assume that BPA staff will monitor each project's task completion, product delivery and costs, and that technical progress will be reported in annual reports.)*

**1) Conduct facility engineering and design**

**2) Construct state of the art screening facilities with associated smolt traps and fish hauling units**

**3) Evaluate fish passage effectiveness by monitoring adult upstream migration**

What provisions are in place, in this project or others, to monitor population status for the target stock, or to monitor the availability or quality of the habitat type targeted?

**A comprehensive fish passage and natural production assessment is anticipated (similar to the Umatilla Basin program) following completion of several ongoing Walla Walla Basin fisheries restoration projects**

How will data be resulting from the project be analyzed and evaluated?

**A multi-agency research coordination committee (similar to the Umatilla Basin program) is expected to later be formed to discuss project results/needs and implement necessary adaptive management actions.**

How will information feed back to management decisions related to this project?

**See answer immediately above.**

How could critical uncertainties affecting your ability to predict the project's outcomes be resolved? Identify any corollary or broader scale research needs that are not explicitly covered by this project.

**See last three answers above.**

**EVALUATION:** *How could the region assess the project's overall performance? List specific elements indicative of project success.*

**Post-project success can be indicated by documenting uninhibited juvenile salmon and steelhead passage at the new facilities.**

**If new information becomes available about uncertainties affecting the project, how will it be incorporated into the decision process?**

**A multi-agency research coordination committee (similar to the Umatilla Basin program) is expected to later be formed to discuss project results/needs and implement necessary adaptive management actions**

**How will the project increase public awareness of the region's efforts to protect, mitigate and enhance fish and wildlife?**

**Numerous agencies, irrigation districts, the watershed council, and many private landowners are already involved in the Walla Walla fisheries restoration program. Public awareness is expected to increase through continued coordination of these diverse groups, publication of project reports, local news coverage, etc. (similar to the successful program in the neighboring Umatilla Basin).**

## Section 5. Budget

Item	Note	FY 98
Personnel		
Fringe benefits		
Supplies, materials, non-expendable property		
Operations & maintenance		
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags: N/A	
Travel		
Indirect costs		
Subcontracts	Engineering and Construction	\$2,750,000
Other		
<b>TOTAL</b>		<b>\$2,750,000</b>

## Outyear costs

Outyear costs	FY1999	FY200	FY01	FY02
Total budget	1,400	750	0	0
O&M as % of total				

